LumiPano™ Collection
ASTRA
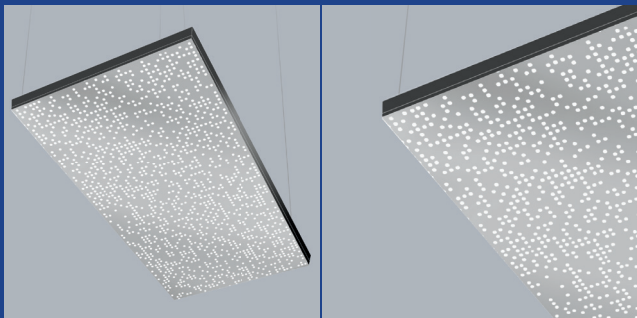
Spec by:

Agency:

Project Name:

Type of Project:

Notes:

IP22 RATED **IP65** **5 YEARS WARRANTY** UL RoHS **Global Recycled Standard**

LIGHTING PERFORMANCE*

	Output	Size				
		2' x 2'	**2' x 4'**	**4' x 4'**	**4' x 6'**	**4' x 8'**
Power consumption (Watts)	Premium	22.4W	50.4W	113.4W	176.4W	252W
Delivered output (Lumens)		1830 lm	4058 lm	9130 lm	14202 lm	20289 lm
Power consumption (Watts)	Standard	11.2W	25.2W	56.7W	88W	126W
Delivered output (Lumens)		784 lm	1763 lm	3967 lm	6171 lm	8816 lm

* Power Consumption and Delivered output values are based on 6500K CCT without any patterns.

ORDERING CODE

TLS	LP	AS		
	Product	**Engine**	**Rating**	**Size**
TLS	LumiPano `LP`	Astra `AS`	Indoor `IN` Outdoor `OUT`	2' x 2' `2x2` 2' x 4' `2x4` 4' x 4' `4x4` 4' x 6' `4x6` 4' x 8' `4x8`

Mounting	Frame color	CCT	Output*	Control	Standard Patterns*
Suspended Threaded Rods `SPT` Suspended Aircraft cables `SPA` Recessed `RD` Surface `SF`	Black `BL` White `WH` Silver `NS` RAL `RAL`	2200K `22K` 2700K `27K` 3000K `30K` 3500K `35K` 4000K `40K` 5600K `56K` 6500K `65K`	Premium (909 lm/sqf)* `P` Standard (494 lm/sqf)* `S`	0-10V `0/10` Remote `RM` Dali `DA`	Fall `FL` Hive `HV` LightSpeed `LE` Maze `MZ` Mondrian `MD` StarStream `SS` Custom Design `CD`

* Lm/sqf are calculated at LED source

*See page 08

TECHNICAL SPECIFICATIONS

- **Diffuser**

Material	Polycarbonate (PC)
Weight	Vary as per pattern
Fire classification	UL94
Light transmission	69%*

*Without any pattern

- **Perforated Sheet Color**

Material	Aluminum			
Standard colors	Black	White	Silver	RAL

- **Frame color**

Material	Aluminum			
Standard colors	Black	White	Silver	RAL

- **Lighting**

Ingress protection	IP22 (indoor) IP65 (outdoor)
CRI	> 90 (white LED)
LM80 *	> 36,000 hours
Operating temperature	-30 ˚C TO 80 ˚C

Note: *LM80 Test is only applicable to white pixels.

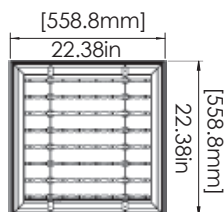| Warranty*	5-year limited warranty for LED

* Warranty Terms and Conditions at www.tls-led.com/warranty

The LumiPano magnetic profile clipping technology allows for easy disassembly of the luminous panel to gain access to the lighting engine and the plenum above. The reassembly is as easy as clicking the framing back into position to hold the frame securely in place.
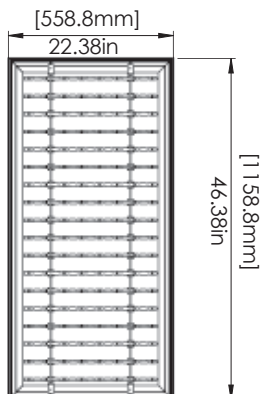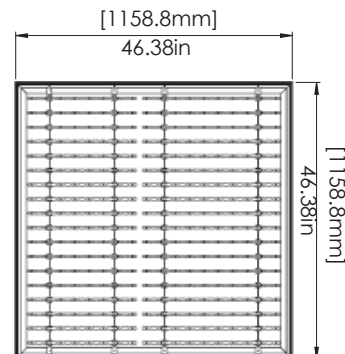
Quick Magnetic Assembly

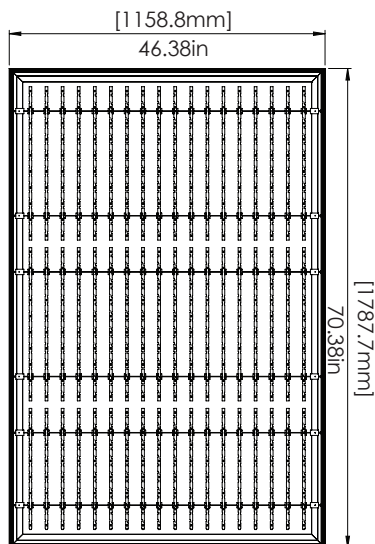LumiPano Profile Base

Integrated Magnet

TLS Led System

Secure Cable

Blockout Reflector

Removable LumiPano Profile

Perforated Metal Panel with Polycarbonate

SIZES PREMIUM

2'x2'

[558.8mm]
22.38in

[558.8mm]
22.38in

2'x4'

[558.8mm]
22.38in

[1158.8mm]
46.38in

4'x4'

[1158.8mm]
46.38in

[1158.8mm]
46.38in

4'x6'

[1158.8mm]
46.38in

[1787.7mm]
70.38in

4'x8'

[1158.8mm]
46.38in

[2358.8mm]
94.38in
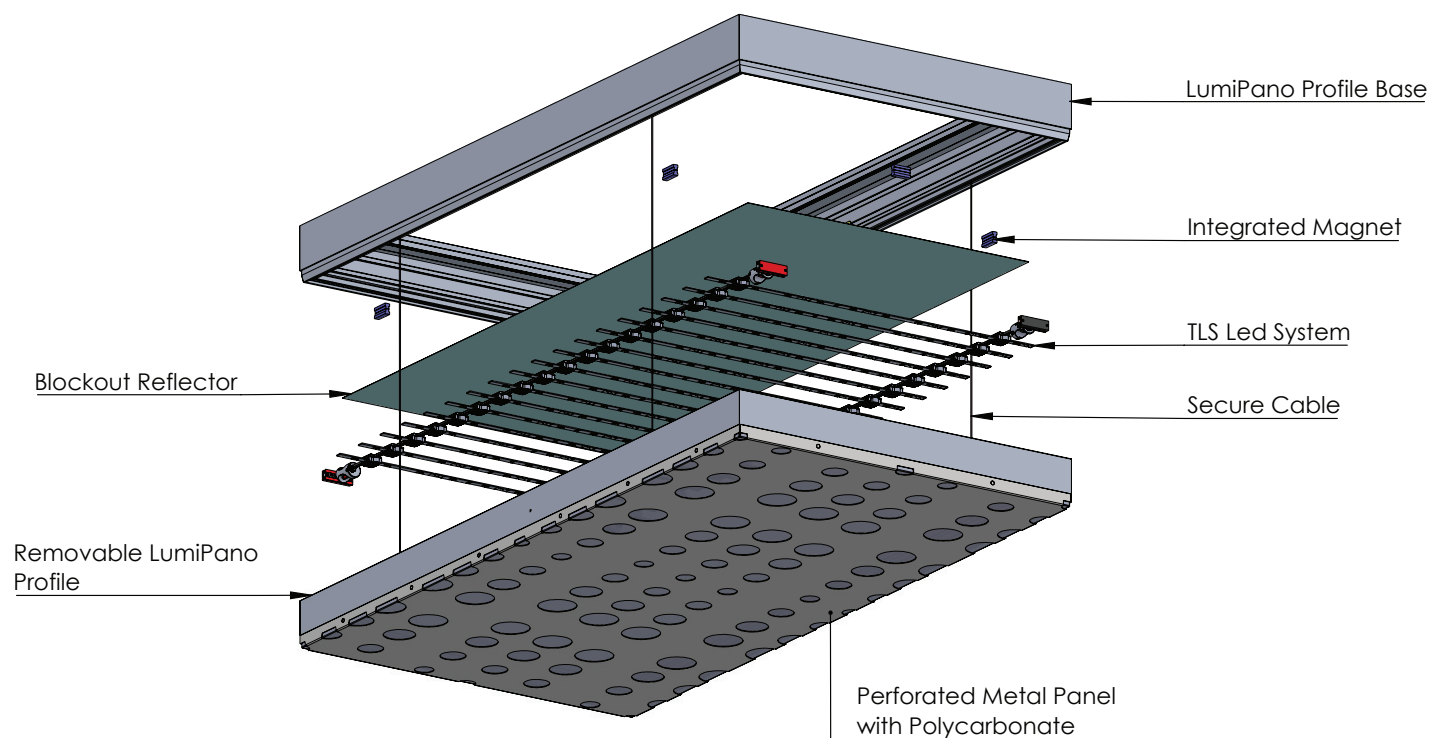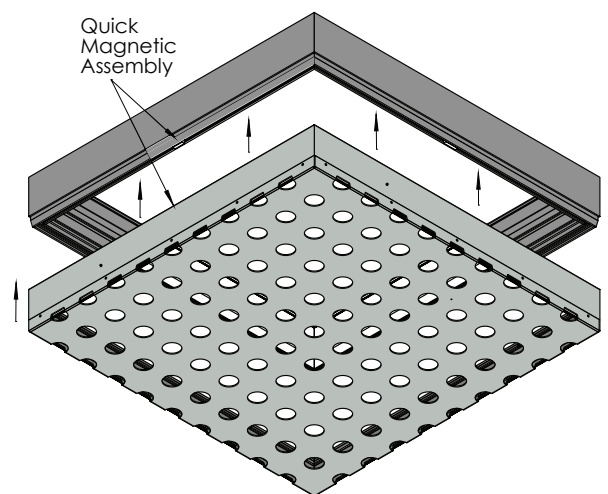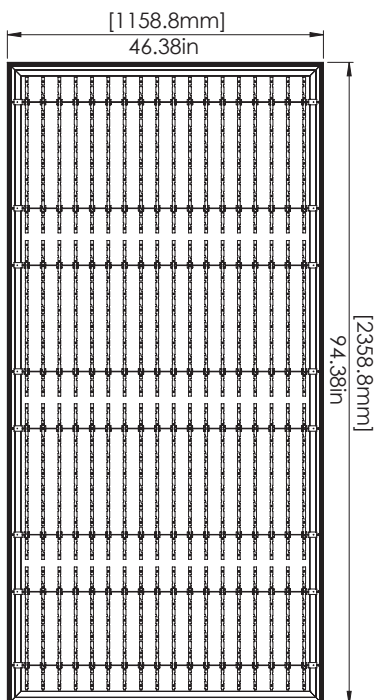
■ **Weight Premium**

Size	2'x2'	2'x4'	4'x4'	4'x6'	4'x8'
Kg	16.99	22.65	28.81	40.34	45.73
Lbs	37.46	49.94	63.52	88.94	100.82

*At 50% of perforation.
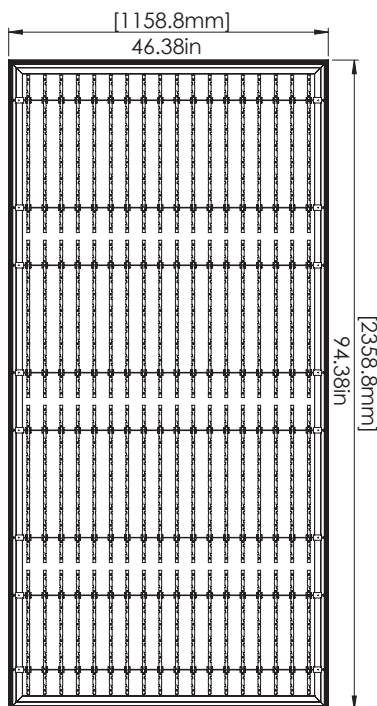
SIZES STANDARD

2'x2'

[562mm]
22.13in

[562mm]
22.13in

2'x4'

[562mm]
22.13in

[1162mm]
45.75in

4'x4'

[1162mm]
45.75in

[1162mm]
45.75in

4'x6'

[1158.8mm]
46.38in

[1787.7mm]
70.38in

4'x8'

[1158.8mm]
46.38in

[2358.8mm]
94.38in
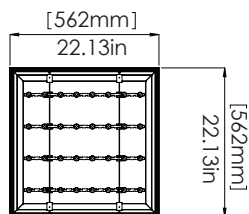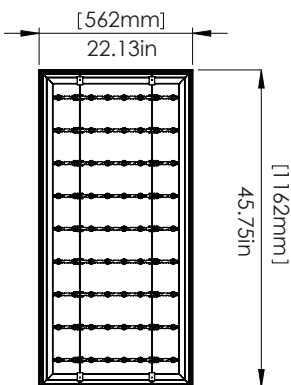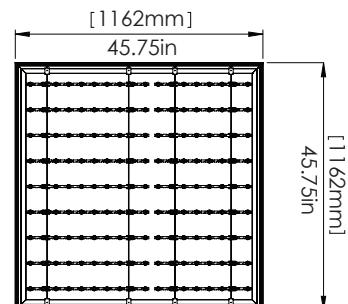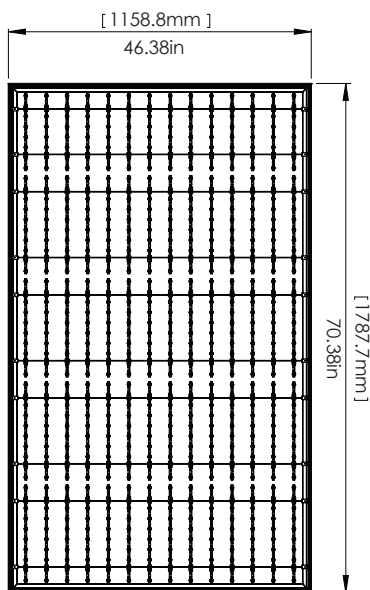
■ **Weight Standard**

Size	2'x2'	2'x4'	4'x4'	4'x6'	4'x8'
Kg	15.79	20.55	26.61	39.34	43.73
Lbs	34.81	45.31	58.67	86.73	96.41

*At 50% of perforation.

LIGHTING PERFORMANCE AND EFFICIENCY

- **Light transmission**

Patterns	Percent of Perforation	Output
Fall	31%	2830
Hive	37%	3378
LightSpeed	24%	2191
Maze	33%	3013
Mondrian	16%	1461
StarStream	13%	1187

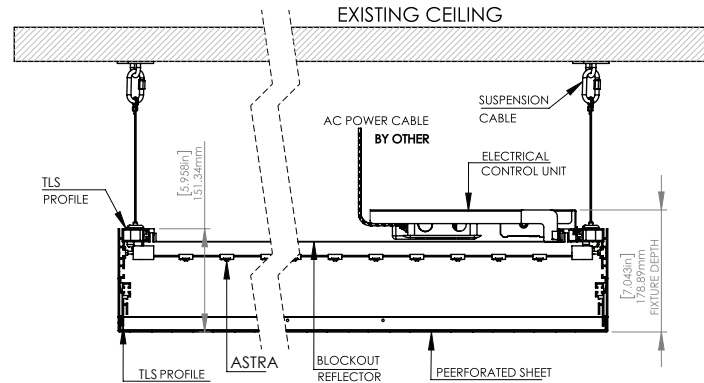*Lumens are calculated for 4'x8' fixture. Pattern will decrease the lumen output.

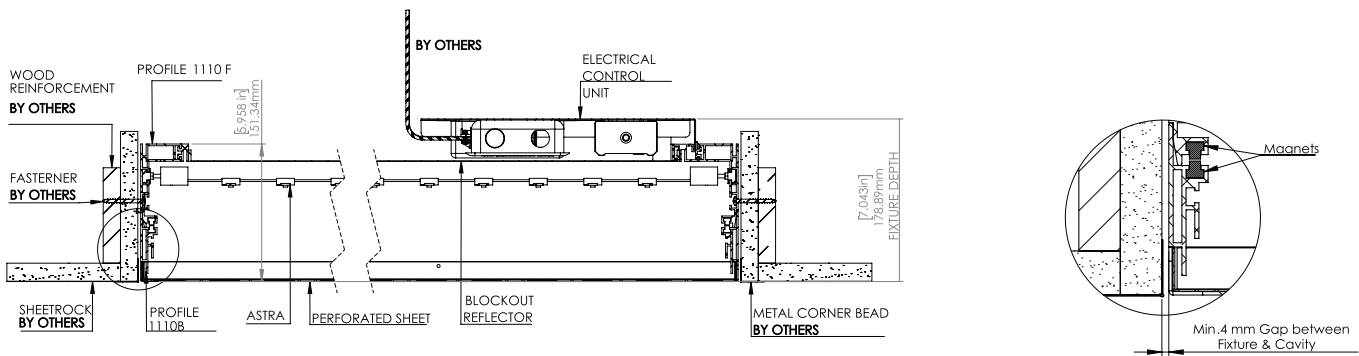## MOUNTING OPTIONS

- **Suspended with Threaded Rods (SPT)**
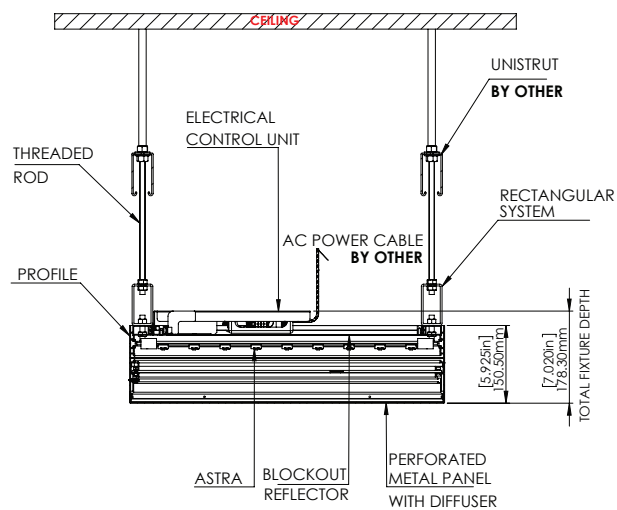
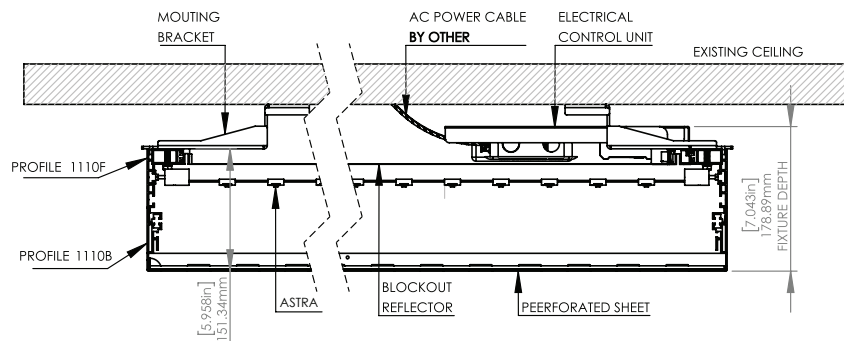# MOUNTING OPTIONS

- **Suspended with Aircraft Cables (SPA)**

EXISTING CEILING

SUSPENSION CABLE

AC POWER CABLE
BY OTHER

ELECTRICAL CONTROL UNIT

TLS PROFILE

[5.958in] 151.34mm

[7.043in] 178.89mm FIXTURE DEPTH

TLS PROFILE ASTRA BLOCKOUT REFLECTOR PEERFORATED SHEET

- Hooks to existing ceiling installed by others

- **Recessed (RD)**

WOOD REINFORCEMENT **BY OTHERS**

PROFILE 1110 F

BY OTHERS

ELECTRICAL CONTROL UNIT

FASTERNER **BY OTHERS**

[5.958 in] 151.34mm

[7.043in] 178.89mm FIXTURE DEPTH

Magnets

SHEETROCK **BY OTHERS** PROFILE 1110B ASTRA PERFORATED SHEET BLOCKOUT REFLECTOR METAL CORNER BEAD **BY OTHERS**

Min.4 mm Gap between Fixture & Cavity

- Cavity to be 4 mm over nominal
- Cavity to be minimum 7" (177.8 mm) deep

- **Surface (SF)**

MOUTING BRACKET

AC POWER CABLE **BY OTHER** ELECTRICAL CONTROL UNIT

EXISTING CEILING

PROFILE 1110F

PROFILE 1110B

[7.043in] 178.89mm FIXTURE DEPTH

[5.958in] 151.34mm ASTRA BLOCKOUT REFLECTOR PEERFORATED SHEET

Note: Parts reference numbers are available upon request.

PATTERNS

- **Fall (FL)**

- **Hive (HV)**
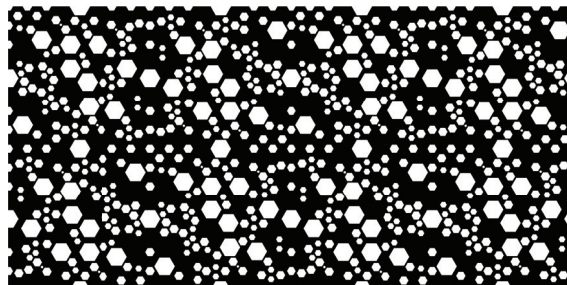
- **LightSpeed (LE)**

- **Maze (MZ)**
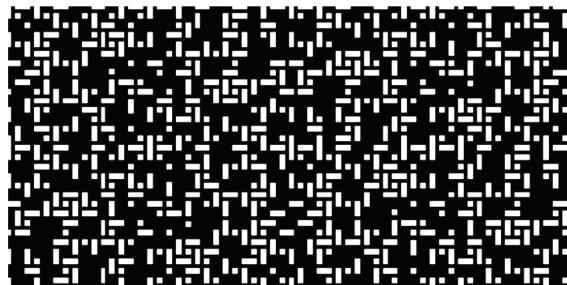
- **Mondrian (MD)**
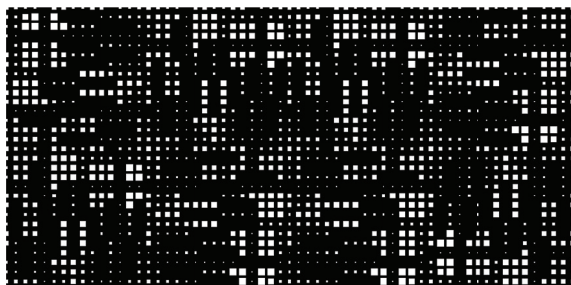
- **StarStream (SS)**

CONTROL

0-10V (0/10)

3rd PARTY 0-10V or 1-10V INPUT
BY OTHERS

POSITIVE | PURPLE
NEGATIVE | GREY

DC JB

TMD-320

AC CABLE
BY OTHER

AC JB

RF Remote (RM)

DC JB

TMD-320

AC CABLE
BY OTHER

AC JB

REMOTE

Dali (DA)

DRIVER

DC JB

3rd PARTY DALI INPUT
BY OTHER

TMD-320

AC CABLE
BY OTHER

AC JB
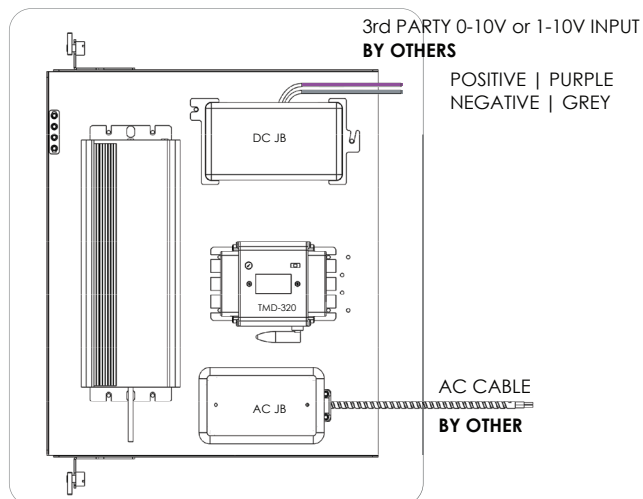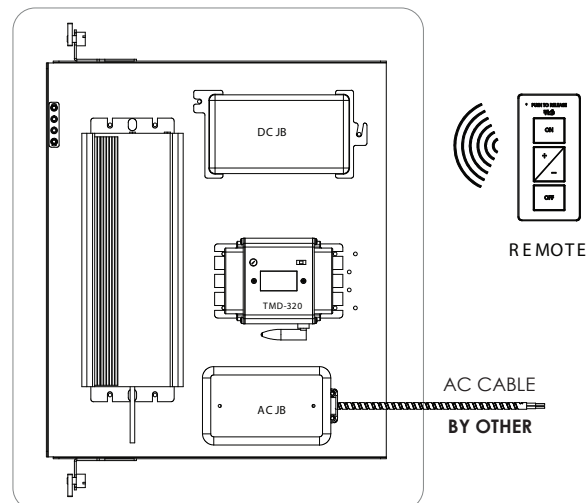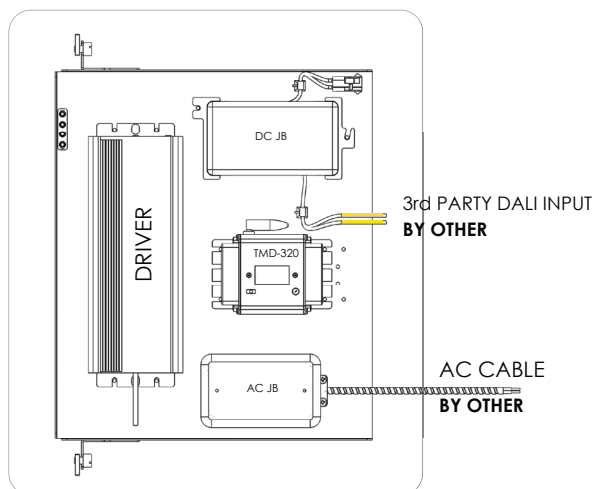
Electrical

Driver models	HLG-60-24A, HLG-100-24A, HLG-150-24A, HLG-240-24A, HLG-320-24A
Input voltage	90-305 V AC, 47-63 HZ
Output voltage	21-24 V DC